

Being an Effective, Engaged Owner During a Design and Construction Project

THE FIFTH IN A SERIES OF ARTICLES ON IMPROVING ENVIRONMENTS FOR LEARNING EXPLAINS HOW TO BE AN ACTIVE PARTICIPANT DURING THE DESIGN AND CONSTRUCTION OF YOUR FACILITY.



David Kalina

is a partner in the architectural and engineering firm of Burgess & Niple, Inc. He also serves as a trustee of Lakeland Community College, is the chair of the Ohio Chamber of Commerce's committee on education and workforce development, and is a member of ACTE's Future Horizons Committee. He can be contacted at dkalina@burnip.com.

IN PRIOR MONTHS, WE'VE TALKED ABOUT creating a building project within the context of an overall strategy for your institution; defining details of the project and budget; selecting an architect and a construction manager (CM); and selecting a form of project delivery. With all of that done, you may be thinking it's time to sit back and let the professionals deliver your project. Not the case! This month, we will focus on your ongoing role in the design and construction process.

The Client/Owner

There are two levels of participation where you, as the project owner, need to actively work with the design and construction team. The lowest level is defined by your contract with the architect, CM, contractors, and others with whom you may have formal, contractual responsibilities related to the project. At a higher level, the owner is well served to participate as an integral member of the design and construction team.

We often see superintendents defer decisions to attorneys, "hired experts," or members of the design and construction team. This is not the formula for a good working relationship. It is wise to have legal counsel review contracts for design and construction work to ensure the interests of the district are properly represented—but understand what the contracts say and mean in plain English.

Work closely with your attorney and the design and construction team to craft language that fairly represents the scope of services you expect your consultants to provide, and make certain you are comfortable with the fees related to those services. You may have your attorney ask the probing questions, but in the long run, it is not his contract—it's yours, and you should know what it says and what it means.

Realize too, that the consultants you hire are only selling time, knowledge and experience. The lower the fee you allow, the less time will be spent; the less experienced the team, and potentially, creativity will be limited because the time is not there to go beyond a prior developed design concept.

Your Role in Design

As the project enters into the design process, the contract will define certain information you are obligated to provide. For example, the owner is typically required to:

- provide the budget and scope of the project—often that relates to a building program, a listing of spaces to be incorporated along with the sizes of those spaces;
- provide the legal, accounting and insurance information to be included in the contract documents;
- identify who is the authorized representative empowered to act on behalf of the owner;
- provide a survey of the property and existing drawings of the facility and site;
- identify and remove any hazardous materials that are encountered, as well as other environmental issues such as wetlands delineation;
- provide the geotechnical investigation and reports to the structural engineer to prepare foundation requirements for any new construction; and
- have specific testing performed during the construction process.

Many of these responsibilities can be shared or shifted to other members of the project team. If a detailed program was not developed, the architect can work with you

and your faculty and administrators to develop one. Either the architect or the CM can assist in developing a project budget and arranging for site survey, environmental and geotechnical information, or adding those services to their contract. If documentation of your existing building(s) and site is not available or reliable, the architect can document existing conditions to the extent that the facilities and conditions can be observed.

Please remember, every time you take an item off of your list and delegate it to someone else, the cost for providing that item, including the risk associated with it, moves too.

Tough Decisions

As the project moves through design, there are usually two or three major submittals where you will be asked to sign off on the course of the development and related budget adjustments, if required. Throughout the project, there will be meetings where elements of the project will be discussed and decisions made. You, or your representative to the project, should plan to be active in these meetings and accept the responsibility for making timely decisions.

If changes are recommended that require rework by the team, the cost and risk to the project schedule need to be addressed. Be certain that you fully understand what you are being asked to approve. Your project team can offer insight and advice to get you in that comfort zone.

If the project delivery system you've selected involves an architect and a construction manager, you will likely be asked to decide issues between the parties. The architect is primarily concerned with function and aesthetics, while the CM is consistently driving budget and schedule. There may be times when your independent consultants arrive at an impasse. This doesn't have to be an adversarial situation, especially if you set the tone as a collaborative team.

We have watched owners pit their CM against their architect and let the two duke it out on critical decision items. Not only

does this poison the work environment for the project, but often the decision falls to the side of the stronger presenter, potentially compromising the outcome. Your role is to listen to the two positions, ask questions and make a decision that you can defend once your consultants are gone.

Cost considerations will inevitably drive some decisions. For example, sloped roofs are more expensive than flat roofs, glazed block is more expensive than painted block, stone is more expensive than brick, and brick is more expensive than split-face block. Mechanical systems and controls for heating, ventilation and air conditioning have options that relate to operations and cost. Lighting and electrical systems all have choices that relate to cost. By engaging in these decisions, you will better under-

stand the long-term impacts.

If the cost of building your new or renovated facility is the only cost you consider, you won't be happy. Often, buying up can save you significant cost in performance and long-term operations. Plan to be at the table to hear those discussions and weigh in on the decision. The old saying "penny wise and pound foolish" is right on target when ongoing performance and efficiency are sacrificed in favor of short-term capital savings.

In an earlier article, I noted a trend of owners hiring a project representative to represent them in discussions and decision-making. A project rep can be a helpful advocate and adviser, but I believe the person with authority to direct the project and make final decisions should reside within your own organization.



Your Role in Construction

Once the project moves into construction, there will be weekly (in some cases, monthly) project meetings where all active contractors, the architect and the CM (if there is one) are present. A representative of the owner should be present, too. The agenda typically includes: progress against the master schedule, problems encountered, upcoming work and coordination issues. You'll get a good sense of how the project is proceeding by sitting in on these meetings. Nothing like having the school year approach and not being able to schedule classes in an area that was supposed to be completed! Change orders will be discussed as well as contractor pay requests.

In most conventional delivery systems, you hold the prime contracts, so you will be asked to sign off on all change orders and ultimately pay all of the bills. There is great value in being connected with the process so you don't experience major surprises, heartburn or legal actions. Depending on the complexity of the project, its size, and whether it's all new construction, all renovation or a mix of the two, construction change orders will occur.

When you are approving the budget during the design phase, you will work with the architect and/or the CM to establish a contingency fund to pay for changes during the construction phase. This is necessary because the architect, the CM and the contractors are allowed to make some mistakes, and some things encountered during construction may be different from what was thought to exist. Some of the changes you will be asked to pay for, and some will be corrected at no cost to you.

A primary cause of errors during construction is the fact that project budgets don't allow for the level of detail required to provide a "perfect" set of construction documents. The legal principle that applies to your consultants is "standard of care" when it comes to liability and negligence. Is the work reasonable and consistent with what another professional might have done under similar conditions, or was it irre-

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sponsible? Likewise, with the contractors, was what they built reasonably consistent with the information provided to them in the plans and specifications?

It seems as if it should be so simple and straightforward; however, you will quickly find, it's not. Typically, you can expect three to five percent of the bid cost for change orders in an all-new construction project, and up to seven to 10 percent of the bid cost for change orders in a renovation project. This doesn't necessarily include those things that *you* may want to change once you see it being built.

The Time Commitment

This sounds like a lot of activity to be involved with! How much time does this translate to? Like many other questions, there is no easy answer. It depends on how large and how complex your project is. It depends on what type of delivery system you have and how familiar you are with construction. It also depends on how well your project team works together.

I worked on a large (more than \$100 million) campus project where the district made one of the assistant superintendents the owner's rep, and for a good part of three years, it was a full-time job. For small projects, it may require only eight

hours a month. In general, the time required varies throughout different project phases.

During parts of the planning and design process, there may be periods when you need to spend two to

three days with the team planning and making decisions. Then it may be several weeks before you need to engage in the next set of issues. Likewise, during construction—especially in the early phases where earthwork and utilities are being developed on the site—there may be little need for your input. However, during the heavy construction period and finishing work, you may have to spend a half-day a week working with your team and the construction contractors to resolve issues, answer questions and provide direction.

Whether it's a day or two a month for small- to medium-size projects, to a full-time position for major new work, the key is to be actively involved in your project. You may have never built a project and may feel way behind the curve—don't worry about it, and don't be embarrassed or afraid to ask questions. Reconnect with being a student. Treat this like a lifelong learning experience.

You can enrich your personal experience and learn a lot about the process of design and construction by being actively involved and asking questions throughout the design and construction period. Your district will benefit from your understanding and input, and all will enjoy a thoughtfully designed and well-built facility. **I**

Your Thoughts?

This is the fifth article in this series. Please drop me an e-mail to let me know if you find these articles interesting and useful. I realize that, unless you are anticipating doing a facilities improvement project, you may just skip past these articles. But if you are planning a project, or are in the middle of one, or if you recently completed a project, let me know what you think and if there is an aspect of the process you would like me to cover in an upcoming article.